THE RE-DISCOVERY OF TWO LOST BIRDS.

BY GREGORY M. MATHEWS.

Mr. Tom Carter, having occasion to return from England to West Australia on business, agreed with me that it was a fitting opportunity to make search for two birds collected almost one hundred years ago and of which no specimens existed. He undertook a thorough examination of the type localities of these birds and his results further enhance his great reputation as a field ornithologist, first brought under notice by his splendid notes from Point Cloates and his discovery of that peculiar endemic Australian genus Eremiornis (carteri). Mr. Carter, who has now returned, proposes to detail his experiences in another place later, and here I give the technical history of the species with a short resumé of Mr. Carter's field notes. It is necessary to emphasize that this is one of the great items of recent ornithological progress in Australia. Macgillivray and McLennan's discovery of the genera Lorius (= Eclectus olim) and Geoffroyus, Captain White's re-discovery of Gould's Xerophila pectoralis, and now Mr. Carter's collection of Malurus textilis and leucopterus form three striking events in the last few years. While the first-mentioned is the most attractive the others are of even more value from the scientific viewpoint of Australian ornithology. While there may be new species still to be discovered in Australia, there is little left now that is a stumbling-block as the three last-mentioned were.

The history of the two birds re-discovered by Mr. Carter is fairly complex and until the original forms were re-determined we were faced by an unsatisfactory position. This is now for ever dispelled and Mr. Carter deserves all our thanks.

When the French Expedition in the "Uranie" and "Physicienne" voyaged round the world, they called at Shark's Bay and then Port Jackson. Most energetic collectors were attached whose names, Quoy and Gaimard, are now familiar, but mostly from the results of their later Voyage

in the "Astrolabe." This was due to a shipwreck on the former voyage, when their Australian birds were mostly lost as well as much other material. As one consequence only a scrappy account of the first voyage was published. They note with pride, that in Shark's Bay they met with new birds, two especially, the *Mérion natté* and the *Mérion leucoptère*. They published these two new species and gave figures in the Atlas though only some half-dozen birds were so treated. Before proceeding further I will give the data in connection with the publication of the work as it now proves important.

In the Ann. Mag. Nat. Hist. Ser. 7, Vol. VII, April, 1901, p. 392, Sherborn and Woodward published the facts in connection with this work and from their figures, which I have verified, I get the following: The text was published in livraisons, 40-48 pages and 6 pls. in each livraison, and at intervals (for it is the first half-dozen parts only which concern us) of about a month. These were noted in the Bibliographie Française and contents given in Ferussac's Bulletin. the latter (Bull. Sci. Nat. Vol. III., p. 220, 1824): following species will be figured in the next No., the descriptions occurring in this." This is a rough idea of what was written regarding Livraison III, and in this connection was mentioned Malurus textilis. In the next volume, p. 85, 1825, about the fourth livraison, Desm(ar)est wrote: "Cette livraison renferme les figures de sept oiseaux, dont les descriptions font partie de la précédente. Ce sont . . . Malurus textilis, Malurus leucopterus." The third livraison was received, according to the former authority, on August 28, 1824, and the fourth on September 18, 1824.

Previous to these dates the birds had been fully described as in the XXXth Volume of the Dict. Sci. Nat. (Levrault), which was received at the same place before May 29, 1824, Dumont published a good account of the same birds under the same names given by Quoy and Gaimard. The article "Mérion" was there given and as Dumont was very friendly with the above-named workers they furnished him with full particulars. Thus on p. 117, Dumont named Malurus textilis,

pl. 23, fig. 2, of the Atlas Zool. from Baie de Chiens marins, and p. 118 Malurus leucopterus, pl. 23, fig. 1, from Ile Dirck Hartighs in Baie de Chiens marins. The quotation of the plates is undoubtedly from those prepared and shown to Dumont but not at that time published. Dumont mentions that the specimen of M. leucopterus had been lost in the shipwreck, but that a good painting by Arago had been preserved. If this painting were to be trusted then the bird differed greatly from Shaw's Superb Warbler. This entry seems to have hitherto been overlooked, but can be no longer, as it is the first introduction and the names must be cited as of Dumont.

No more particular locality than Shark's Bay was given in the text either by Dumont or Quoy and Gaimard for Malurus textilis, but in the "Table Explicative des Planches Oiseaux" I find

"Pl. 23, fig. 1. Mérion Natté, de la presqu' île Péron, à la baie des Chiens Marins,"

so that the type locality is Peron Peninsula, and not the Island as might be suggested. Later, this may become an important item, but as hereafter explained it does not seem of much concern at the present moment.

Though the birds had been well described and well figured, through ignorance of the importance of locality, the names were utilised for birds, not agreeing too well, from East Australia

Thus Gould, in his Birds of Australia, figured two New South Wales birds under the names above given, but later became doubtful regarding the accuracy of the attachment in one case but not the other. Thus in the Handbook, Vol. I., 1865, p. 330, he wrote under the heading "Malurus leucopterus Quoy et Gaim.?": "I regret that I have not been able to clear up the doubt which exists in my mind, whether the present bird is or is not distinct from the one figured by Messrs. Quoy and Gaimard in the 'Voyage de l'Uranie,' since, on applying at the Museum of the Jardin des Plantes for the purpose of examining the original specimen, it could not be found; the

figure above quoted, if intended for this bird, is by no means correct, and it is, moreover, said to be from Dirk Hatich's Island, on the western coast, a locality very distant from those in which my specimens were procured, New South Wales; which circumstance strengthens my belief that that may be distinct; besides which, the bird under consideration is supposed to be exclusively an inhabitant of the interior; for I have never observed it between the mountain ranges and the coast, and it is scarcely probable, therefore, that it should inhabit an island like that of Dirk Hatich. In case they should prove to be different, I propose the name of Malurus cyanotus for the bird from New South Wales."

On p. 335, under the name Amytis textilis, Gould wrote: "The bird figured in the 'Voyage de l'Uranie' doubtless represents the present species. . . . The only place in which I have observed the Textile Wren was the plains bordering the Lower Namoi." He wrote this although he had described Amytis macrourus from West Australia concluding this "Is evidently the representative of A. textilis of the eastern coast, to which it is very nearly allied, but from which . . . it may at once be distinguished by its more robust form, and by the much greater length and size of its tail." Notwithstanding the obvious discrepancies indicated above in the statements made by Gould, the compilers of the British Museum Catalogue of Birds continued the misusage of both names and consequently Australian authorities were unable to rectify them. It fell to the lot of an Australian ornithologist, our well-known A. J. Campbell, to indicate that the recognition of the Malurus leucopterus was quite wrong. A dark colored (black and white) Malurus was described in the Victorian Naturalist (XVII., p. 203) in April, 1901, as a new species Malurus edouardi. specimens came from Barrow Island, Mid-West Australia.

In the Emu (October, 1901), Vol. I., p. 26, A. J. C. gave a note: "Astray for 77 years! Recently (April, 1901) I described a black and white *Malurus* (*M. edouardi*) in the *Victorian Naturalist*. Since I have been induced to refer to Quoy and Gaimard's original figure of *M. leucopterus*, which

Gould queried, and substituted for the species his own blue and white figure (vol. iii., pl. 25). This transposition was apparently accepted as being correct by the "British Museum Catalogue" (Vol. IV., p. 290). In Quoy and Gaimard's figure I at once recognised a generally fair drawing of edouardi. Should the black and white Wrens of Barrow Island and Dirk Hartog Island (isolated localities about 500 miles apart) eventually prove the same species, then after a lapse of 77 years the real M. leucopterus has been re-discovered, while Gould's long-standing provisional M. cyanotus will become the proper name for the blue and white bird."

In the next number (January, 1902), p. 65, a further note is given explaining pl. VI., which is an illustration of a mounted specimen of the Barrow Island bird (*M. edouardi*) for comparison with a reproduction of the original figure of *Malurus leucopterus* from the Voy. de l'Uranie.

Simultaneously (Rec. Austr. Mus., Vol. IV., p. 209, Jan. 1910) North recognised the same facts stating that the note "was sent last July to Melbourne for publication in the Victorian Naturalist but was temporarily withdrawn." the Emu, April 1902, p. 152, the editors make some caustic remarks regarding North's action which seem quite out of place and moreover do not discuss his claim that it was due to his initiative that Campbell recognised his edouardi as being close to or identical with the original leuconterus. The matter then dropped, as no specimens were available from Dirk Hartog's Island, so that finality could be achieved. In preparing my List I concluded the best solution was to consider them the same species, but until specimens could be actually compared leave the two as subspecifically distinct on account of the different localities. Against the Dirk Hartog form I added the note "? Extinct."

Mr. Tom Carter has proved that it is not extinct.

Regarding Malurus textilis the collection of specimens brought forward the interesting fact that these birds were very local and that many subspecies could be distinguished when birds were procured. Thus Milligan described an

Amytis gigantura from Mount Magnet, West Australia, and then North differentiated the Meerenie Bluff, Central Australia, form from the New South Wales bird Gould and he recognised as M. textilis Q. & G. Then Carter described the form from Broome Hill, but later concluded this was Gould's A. macrourus. When I drew up my Reference List I described another form from Cardinia, south-east of Coolgardie, and I named the New South Wales form as it was obvious it could not be the Shark's Bay bird. Since then more forms have been named but the typical Malurus textilis had never been seen. Thus a very important factor was still wanted and now Mr. Tom Carter has completed this by the collection of birds from the original place. The extreme value of such work cannot be overestimated.

Mr. Carter's field notes (abridged) are here given:

"Nesomalurus leucopterus. This Black and White Wren was one of the commonest species on Dirk Hartog Island, but the full plumaged males were, almost invariably, exceedingly wild, while the females and immature males were tame, and could always be 'chirped' close up, often to within a distance of three feet, and would remain there as long as one kept still. If an adult male is come upon suddenly, say by one's going quickly round a bush, it may remain motionless for a few seconds. . . It then flies quickly and if followed it keeps taking longer flights every time it is approached and eventually is lost to sight. Once, on open ground, I came upon a full plumaged male perched on a dry stick about 3 feet off the ground. There was no cover for me to take and I had to approach it openly and it remained motionless until I got close up. It was no use to try to 'chirp' up male birds, but at times when a party of females and immatures were intently watching me and listening to my 'chirping,' the male was seen lurking in the dense foliage of a neighbouring bush, but would not openly expose itself. The full-plumaged male, as a rule, is accompanied by a party of six to ten females and immature, and leads them away out of danger at high speed, necessitating running to keep them in sight. One or two of

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the birds keep dropping out of sight, and eventually one finds that the whole party has vanished in the scrub. The note (song) is a similar musical trilling to that of Mal. leuconotus, but is not uttered nearly so frequently. This species usually runs on the ground at great speed, occasionally hops; they are very skilful in flying perpendicularly into the air, from a bush, and catching small insects on the wing. It apparently breeds in September, as a quite recently fledged young bird was noted on Oct. 9th and many of various sizes about Oct. 18. None of this species were seen or obtained by me on the mainland, where the dividing arm of the sea is barely one mile in width, but was replaced by Malurus leuconotus which was fairly common.

"Diaphorillas textilis carteri from Dirk Hartog Island. Apl. 29, 1916. Walked out from my camp at Government-Well, near north-east corner of the island, among coast sand hills. On the western slope of the last ridge, saw a bird dart out of a bush close to me, and run at great speed from bush to bush with head outstretched and tail horizontal. It looked like a rat. I squeaked with my lips and it stopped running. creeping about on the ground, below short bushes close to me, like a Ground Thrush. It kept well concealed affording only a glimpse now and then. . . . About fifty yards further along the slope of the same sandhill I caught sight of a bird, low down in a large wattle bush. I squeaked with my lips, and it rapidly climbed, like a Parrot, to about six feet above the ground, then turned, facing me, with head down, wings and tail expanded and feathers ruffled out. Neither of the above birds uttered any noise that I could hear.

"Oct. 17th. Saw a bird, that at first I thought was a Calamanthus fly from an open place off the ground to under the shelter of a mass of bushes. I crawled there on hands and knees, and squeaked with my lips. At once Diaphorillas textilis came in sight under a mass of bush within eight feet of me and with outspread drooping wings and feathers puffed out uttering a low scolding note, ran backwards and forwards keeping well under shelter of the bushes.

"Oct. 22. Saw birds running at great speed with tails erect from one clump of bushes to another. Occasionally

the birds hopped, but mostly ran at speed.

"Nov. 4th: Twice I saw a bird run from one bush to another then it flew well about twenty-five yards into the bottom of a big wattle bush. Its flight was straight, not undulating, with tail slightly drooping. Later as I approached another about four feet from the ground, it dropped to ground and disappeared.

"Nov. 10th. Mr. Lloyd came to station and said he saw a Grass Wren come out of the scrub and flutter along the road for some distance uttering a squeaking noise. The dogs had

frightened the bird out of the scrub on to the road.

"Diaphorillas textilis textilis. Jan. 2, 1917. On several occasions previous to this date. I had seen a single, and once a pair of birds, in low scrub near Denham on Peron Peninsula that I felt sure were Diaphorillas. One day I had a shot at one with No. 10 shot, but although the bird seemed to be hit, I lost it in scrub. For eight consecutive days I was hunting round the vicinity when I saw a bird moving in the bottom of the scrub. I chirped with my lips and at once it emerged from below bush, and ran away from me with wings drooping and feathers puffed out, to underneath a dense "needle" bush, under whose shelter it paused. I had not a very clear view of it, but shot and killed it, a male Diaphorillas textilis with testes enlarged. In measurement it is much the same as Dirk Hartog birds, but the general plumage is darker, brighter, and with bolder markings than any from Dirk Hartog Island. The Peron bird is MUCH more wary than the others."

The above note refers absolutely to the typical form named by Dumont and Quoy and Gaimard and figured by them.

The following is a description of the two species.

NESOMALURUS LEUCOPTERUS.

Adult male. Head, mantle, outer upper wing-coverts, lower back, upper tail-coverts, sides of the face, throat and entire under-surface of the body glossy blue-black with steel-

blue reflections chiefly on the head, sides of the face, and sides of the body; a tuft on the sides of the breast; inner upper wing-coverts, upper back, scapulars and long innermost secondaries silky white—the upper back and scapulars overlapped by the dark elongated feathers of the mantle: primary and secondary quills pale brown, some of the inner ones of the latter darker and partially white, outer-webs of primaries edged with faded blue; tail-feathers blue, the outer feathers paler at the tips, with narrow dark obsolete bars which gives a more or less waved appearance; under wing-coverts dark brown or blackish, paler and inclining to whitish on the greater series like the basal portion of the inner quills below, remainder of the flight-quills on the undersurface hair-brown: lower aspect of tail dark invisible blue. Bill black; eyes dark hazel; legs brownish purple, feet darker. Total length 112 mm.; culmen 9, wing 44, tail 55, tarsus 19. Collected on Dirk Hartog Island, West Australia. on the 30th of September, 1916.

Adult female. General colour above rusty earth-brown including the head, back and wings, the sides of the face, sides of the body, thighs and under tail-coverts similar but rather more rufous on the flanks and under tail-coverts, tail pale greenish blue, paler on the outer feathers; some of the feathers edged with white at the tip; primary quills edged with hoary-white on the outer-webs; under wing-coverts buffy-white; under-surface of flight-quills rusty brown, paler on the basal portion of the inner ones; lower aspect of tail pale greenish blue. Bill pale reddish, eyes dark hazel, legs and feet purplish flesh. Measurement. about the same, but the tail perhaps longer than in the males Collected on Dirk Hartog Island, West Australia, on the 9th of October, 1916.

Diaphorillas textilis carteri, subsp. n.

Adult male. General colour above and below earth-brown tinged with rufous and streaked with white; the feathers on the top of the head, hind-neck, back, upper wing-coverts,

and sides of the face are disintegrated in structure, lined along the shafts with white followed on each side by black and margined by rusty earth-brown—the last colour is developed more extensively on the back and the upper wingcoverts are inclining more to rufous; flight-quills brown with pale outer edges and rufous-buff margins to the inner-webs: tail-feathers brown with pale disintegrated edges and narrow dark obsolete bars which give a waved appearance; throat, fore-neck and breast also lined with white, with rufous margins to the feathers; middle of abdomen paler and inclining to whitish and more uniform earth-brown on the lower flanks: axillaries, under wing-coverts, and inner edges of the quills below rufous; remainder of the under-surface of the flightquills brown like the lower aspect of the tail. Bill bluish horn. mouth yellow, eyes light hazel, feet and legs purplish brown. Total length 192 mm.: culmen 13, wing 68, tail 93, tarsus 25, Collected on Dirk Hartog Island, West Australia, on the 18th of May, 1916.

Adult female. Differs from the adult male in having a dark chestnut patch of feathers on the sides of the body.

I have compared a Dirk Hartog specimen of Nesomalurus leucopterus with a Barrow Island bird Nesomalurus edouardi and note the following differences: The former has a distinctly stouter bill, recalling the original figure which appears to have exaggerated that feature to call attention to it: the white markings on the scapulars extend on to the secondaries which are pure white, while in the latter they are brownish with white edgings: the wing in the Barrow Island form is noticeably longer. As no series are available these characters may not be constant, but as Campbell emphasized, the localities are five hundred miles apart and consequently the forms must, for the present, be regarded as subspecifically separable.

For these dark Blue Wrens I proposed the new generic name Nesomalurus, but Mr. Carter suggests that as the Dirk Hartog form is replaced by the blue and white species on the mainland, and as in habits, note, etc., it is essentially identical, it may be simply an island evolution of the blue and white form. Moreover, he adds that the two species of the latter I recognised in my List, viz., Hallornis cyanotus and Hallornis leuconotus, are identical. I have always been troubled about this item and am inclined to agree with Mr. Carter, but at present do not know which name has priority, although apparently the latter. In which case the species would read—

Hallornis leuconotus.

Hallornis leuconotus leuconotus,

Interior of South Australia.

Hallornis leuconotus cyanotus. Coastal New South Wales, Queensland, Victoria and South Australia and South Australia.

These seem scarcely separable.

Hallornis leuconotus exsul. West Australia.

Hallornis leuconotus perplexus is a synonym of this form.

The subject of the Dark Blue Wrens is more complex than at first appears. While it may be quite true that the Dirk Hartog and Barrow Island Wrens are simply melanistic products of Hallornis, we cannot jump to this conclusion without considering the New Guinea so-called Malurus and Todopsis. The latter genus was proposed for large birds of Malurus (cyaneus) coloration, and has since been regularly recognised even by genus lumpers. Under Malurus has been classed a New Guinea species of similar coloration to the Dirk Hartog species, but comparison shows it to have had an entirely different origin to that suggested for the latter. The New Guinea species Malurus alboscapulatus Meyer, has a much longer broader bill, recalling the formation of the bill of the New Guinea Todopsis, and quite different from the Dirk Hartog Island bird's bill, it also has a different wing formula and a noticeably shorter square tail. It is

obviously not a *Malurus* even in a broad sense, and as I have seen no generic name yet proposed for it I introduce the new name of—

DEVISORNIS

and name Meyer's species as type Devisornis alboscapulatus. Whether it should be associated with Todopsis or not may be debated, but the close relationship of Todopsis to Malurus seems indubitable from colour values alone. In recent classifications they have been very widely divorced, but I think this is quite unnatural. If it be proven they have no close alliance then we cannot hypothetise upon the near alliance of the Dirk Hartog form and the mainland Hallornis, but must wait anatomical investigation.